

Advantages and Disadvantages of Marketing and Global Demand of Medicinal Plant - A Review

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ABSTRACT

India has a very rich source of plant biodiversity, most of which are medicinally useful. Now days due to lot of awareness about herbal medicine in society and globalisation of herbal medicine, the demand of herbal medicinal plant expanded. It will exert positive and negative effect over critically endangered, endangered and vulnerable species of medicinal plants. This rich resource is disappearing at an alarming rate as a result of over-exploitation. Many medicinal plants are also in trouble from over harvesting and destruction of habitat. At present so many manufacturing company entered in competition so the one formulation is prepared by number of company. It became burning issue regarding the herbs. Therefore, the management of traditional medicinal plant resources has become a matter of urgency. That's why an attempt has been made to provide current advantages and disadvantages of marketing and global demand of medicinal plants.

KEYWORDS: Marketing, Global demand, Endangered, Vulnerable, Medicinal plants

INTRODUCTION

There is a great demand for herbal medicine in the developed as well as developing countries. Because of their wide Biological activities, higher margin of safety than synthetic drug and lesser costs. India is sitting on gold mine of well recorded and traditionally well practiced knowledge of herbal medicine. The country is perhaps a great source of medicinal species and sight called botanical garden of the world owing to its rich biodiversity.

India has 2.4% world's area with 8% of global biodiversity and it is one of 12 mega diversity hotspot countries of the world with rich diversity of biotic resources. Out of 34 hotspots recognized, India has two major hotspots the eastern Himalayas and Western Ghats.^[1] Across the country the forests are estimated to harbor 90% of India's total medicinal plants diversity.

WHO estimated that 80% of the population of the developing countries relies on traditional medicines, mostly plant drugs, for their primary health care needs. In China, Nepal and India, they are important

revenue generating resources and providing income to economically marginalized and indigenous people.^[2] Now a days due to this increasing interest by multinational companies and domestic manufacturers of herbal based medicines is contributing significant economic growth of the global medicinal plants sector as emerging market.

Due to this global demand and marketing the medicinal plant is on the verge of extinction. The IUCN (International union for conservation of nature and natural resources) red list of threatened species included a total of 560 plants, in India out of which 247 species are in threatened category.^[1] On the other hand due to this a great advantage is there a lot of awareness has been created globally about herbal medicine. So now it is burning issue regarding medicinal plants. It's time to create awareness in the society as well as in the marketing sector to avoid its negative effect such as over harvesting of globally demand species of medicinal plants that result into extinction of medicinal species.

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AIMS AND OBJECTIVES

The study was carried out with an aim to review the advantages and disadvantages of global demand and marketing of medicinal plants.

MATERIALS AND METHODS

This study was carried out by critical reviews. Searching various medical databases like PubMed, Google scholar, Dhara, Google Search, etc. related to plant tissue culture in Herbal medicinal plant, endangered medicinal plants, Global demand of medicinal plants, marketing of herbal medicinal plants.

DISCUSSION

Biodiversity and importance of medicinal plants

India is endowed with a rich wealth of medicinal plants. These plants have made a great contribution to the development of ancient Indian materia medica. One of the earliest treatises on Indian medicine, the Charak Samhita (1000 B.C), records the use of over 340 drugs of vegetative origin. The varied agro-climate conditions in the India make it suitable for growing a wide range and variety of valuable medicinal plants.^[2] Medicinal plants as a group comprise approximately 8000 species and account for about 50% of all the higher flowering plant species of India. Millions of rural mass use medicinal plants. In recent years the growing demand for herbal products has led to a quantum jump in volume of plant material traded within and outside the country. Very small proportions of the medicinal plants are lichens, ferns, algae etc.^[3]

As stated early; India has got 2.4 % of World's area with 8% of global Biodiversity.^[1] In India the forest are estimated to harbor 90% of India's total medicinal plants diversity.^[1] It is estimated that in India 75000 species of medicinal plants are present as compared to other countries. One fifth of all the plants found in India are used for medicinal purpose. The world average stands at 12.5% while India has 20% plant species of medicinal value and which are in use.^[4] But India has about 44% of flora, which is used medicinally.^[5] Although it is difficult to estimate the total number of medicinal plants present worldwide, the fact remains true that India with rich biodiversity ranks first in per cent flora. WHO has also estimated that the present demand for medicinal plant is approx. us \$ 14 billion per year. The demand of raw material of medicinal plant is growing at the rate of 15-25 % annually and according to an estimate of WHO the demand of medicinal plants is likely to increase more than us \$ 5 trillion in 2050. In India the medicinal plant related trade is estimated to be approx. us \$ 1 billion per year.^[1] About 90% of medicinal plants used by industries are collected from the wild. While

over 800 species are used in production by industry, less than 20 species of plants are under commercial cultivation. Over 70% of the plant collections involve destructive harvesting because of the use of parts like roots, bark, wood, stem and the whole plant in case of herbs. This poses a definite threat to the genetic stocks and to the diversity of medicinal plants. Recently some rapid assessment of the threat status of medicinal plants using IUCN designed CAMP methodology revealed that about 112 species in southern India, 74 species in Northern and Central India and 42 species in the high altitude of Himalayas are threatened in the wild.^[3] Therefore the growing demand is putting a heavy strain on the existing resources.

Hence from above it is clear that, though India has got rich biodiversity in herbal medicinal plants. The increasing demand is disturbing the balance of eco system in concerns with the herbal plants, drugs and the global demand to fulfil the basic requirements. Therefore, we have to face some advantages and disadvantages about the global demand of herbal medicinal plants.

Advantages of Marketing & Global Demand of Medicinal Plants^[1-7]

- Over one & half million practitioners of the medicinal plants used them for preventive and curative applications.
- Medicinal plants offer a wide range of subsistence, cultural and monetary benefits to people.
- In China, Nepal and India, they are important revenue generating resources and providing income to economically marginalized and indigenous people.
- Increasing interest by multinational pharmaceutical companies and domestic manufacturers of herbal- based medicines is contributing significant economic growth of the global medicinal plants sector.
- In 1997 there were 3, 500 tons of the bark of the shrub *Prunus Africana* (valued at US \$ 220 million) was exported from Africa, which used in the treatment of prostate disease.
- The global market potential of Aloe Vera used to treat burns and added to skin creams and cosmetics was estimated in the billions of dollars.
- Devil's Claw, is a major exports from Namibia for use in the treatment of arthritis and other inflammatory diseases.

- In the three Himalayan countries of Nepal, Bhutan and Bangladesh, several thousand tons of Medicinal and Aromatic Plants (MAPs) are extracted from forests providing earnings that run into millions of dollars each year.
- India, which is the hub of the regional trade, at the national level up to 40% of the state forest- based revenues and 70% of forest export revenues come from MAPs & Non-Timber Forest Products (NTFPs), mostly in unprocessed and raw forms.
- In Nepal it is estimated that every year 20,000 tons of MAPs worth US\$ 18-20 millions are traded and about 90% of this collection is exported mainly to India in raw form.
- The demand for medicinal plants in India to meet both domestic and export markets which was projected to increase at about 15–16 per cent annually, between 2002 and 2005.
- If properly organized, the cultivation and management of medicinal plants becomes highly remunerative both in financial and economic terms for the small-scale growers.
- The annual revenue stream from the three major Indian systems of medicine, i.e., Ayurveda, Unani and Siddha, is estimated at more than half a billion dollars annually.
- A study of demand and supply of medicinal plants carried out by the Board during 2007-08 brought out alarming shortages of some of the plants used by the Ayurved industry.
- The estimated demand of Ashoka bark is in excess of 2,000 MT, however, the availability in the wild is extremely rare.
- Likewise, though more than 1,000 MT of gum resin of Guggul is used by the Ayurvedic industry, more than 90% of this is imported. Hence Board, sanctioned conservation/ plantation of Guggul over 4,000 hectares of forest areas in Gujarat and Rajasthan, Ashoka over 800 hectares in the States of Karnataka, Orissa and Kerala and Dashmool trees over 1,100 hectares in the States of Gujarat, Madhya Pradesh, Tamil Nadu, Karnataka, Kerala, Tripura and A P.
- Special drive was also launched to conserve and propagate high altitude plants like Atees, Kuth, Kutki through the non- government organization working at the grass root level in the Himalayas.
- Under the School Herbal Garden programme, more than 1,000 schools have been covered in different parts of the country creating awareness among citizens of tomorrow about the health promoting role of our bio-diversity.
- The Board is making new strides during the 11th Plan. Against a 10th Plan expenditure of Rs. 142 crores, the outlay during the 11th Plan is Rs. 990 crores—a seven fold increase.
- A new initiative in the form of National Mission on Medicinal Plants focus on inclusive growth in agri-business through medicinal plants and thereby improve the market access of growers/farmers for more remunerative prices for their produce and better quality of raw material for the Ayurvedic, Siddha and Unani industries.
- Export opportunities of natural products are tremendous, as the world market is looking towards natural sources for the purposes of therapeutic use as well as nutritional dietary supplements.
- The global herbal remedies market can be classified into five strategic areas:
 1. Phyto-Pharmaceuticals- the plant based drugs containing isolated pure active compounds used to treat diseases;
 2. Medicinal Botanicals / Dietary Supplements - the whole plant or plant-part extracts used for maintenance of health by affecting a body structure and its function;
 3. Nutraceuticals - the food containing supplements from natural (botanical) sources, that deliver a specific health benefit, including prevention and treatment of disease;
 4. Cosmoceuticals - the cosmetic products which contain biologically active ingredients having an effect on the user and
 5. Herbal raw material.
- India is one of the major exporters of crude drugs mainly to the six developed countries, (USA, Germany, France, Switzerland, UK and Japan) about 75% to 80% of the total exports of crude drugs from India.

Disadvantages

- A study of demand and supply of medicinal plants carried out by the Board during 2007-08 brought out alarming shortages of some of the plants used by the Ayurved industry like ASHOKA, GUGGULU, DASHMULA.
- All the raw materials used by the Pharmacies are not of indigenous origin.
- For instance most of the 'Chiraita' and other Himalayan medicinal plant crude drugs come

from Nepal and Bhutan, 'Oleoresin gugul' of best quality from Pakistan, 'Liquorice' from Afganistan and good quality of 'Banshalochan' from Singapore.

- According to the data from CHEMEXCIL, of the total estimated annual demand of 31,780 tons of raw herbal material of pharmaceutical industries 7,180 tons is met with through import.
- The requirements of Akkalkada- *Anacyclus pyrethrum*, Jesti madh- *Glycyrrhiza glabra* (Pakistan, Iran, Afganistan), Dalchini- *Cinnamomum zeylanica* (China), Chopchini- *Smilax china*, Maiphal- *Quercus infectoria* and Revchini- *Rheum emodi* are mostly met through imports.
- About 90% requirement of Guggul (*Commiphora wightii*) is imported from Pakistan.
- Collectors, processors and traders face problems in finding favorable markets due to price factors, quality and quantity considerations.
- Local and regional price fluctuations as well as the lack of current market and price information affect the income of the actual local collectors who are dependent on the middlemen or village traders.
- Financial and logistic constraints make it difficult for local producers and collectors to interact more closely with prospective clients.
- The followings are the major challenges in trading of Medicinal Plants both at domestic and international level.
- Inadequate knowledge and incomplete information on products, markets and prices on the part of collectors/producers.
- Difficult to No proper recognition access appropriate markets and market information. of environmentally and commercially sound MPs.
- Lack of standardization and consistency in quality for international marketing Astringent phyto-sanitary regulations such as requirement of microbiological test, pesticides and heavy metal test by international markets.
- Uneven distribution of benefits.
- Due to increasing demand the collector collects the immature plants species that affect the quality of raw materials.

CONCLUSION

- Medicinal plants constitute a vast, undocumented and overexploited economic resource and they are

the principal health care resources for majority of the people.

- Demand for medicinal plant is increasing in both developing and developed countries, and the bulk of the material trade is still from wild harvested sources on forest land and only a very small number of species are cultivated.
- The expanding trade in medicinal plants has serious implications on the survival of several plant species, with many under serious threats to become extinct.
- All-our efforts should be made to adopt a package of best practices encompassing conservation, cultivation, quality control and standardization and research and development for medicinal and herbals for improving its marketing performance efficiently and fulfilling the global demand.

REFERENCE

- [1] S. Sharma and R. Thokchom. *A review on endangered medicinal plants of India and their conservation*. Journals of Crop and Weed, 2014. 10(2): 205-218.
- [2] C.B.Singh. "Global demand of Medicinal Plants and its opportunities to Indian Economy" Conference: A National Symposium on IFSSA – 2011., Volume: Vol. 17 No. 1
- [3] Sudir Sharma, Nilima Rathi, Barkha Kamal, Dipika Pundir, Balijinder Kaur and Sarita Arya. *Conservation of biodiversity of highly important medicinal plants of India through tissue culture technology – a review*. Agriculture and Biology Journal of North America, 2010, 1(5): 827-833.
- [4] Schippmann, U., Leaman, D.J. and Cunningham, A.B. 1990. *Impact of Cultivation and Gathering of medicinal plants on Biodiversity: Global Trends and Issues*, In: Biodiversity and the Ecosystem Approach in Agriculture, Forestry and Fisheries. FAO. pp. 1-21.
- [5] Hamilton, A. 2003. *Medicinal plants and conservation: issues and approaches* [online]. http://www.wwf.org.uk/filelibrary/pdf/medplan_tsa_ndcons.pdf.
- [6] J.B. Komraiah. *Marketing of medicinal plants: challenges and strategies*.
- [7] Chief Executive Officer., *Conserves Rare and Endangered Medicinal Plants*, NMPB, Chandralok Building, New Delhi. RTS/VN(Release ID :42722) [online]